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California Regional Water Quality Control Board
North Coast Region

ORDER NO. R1-2016-00**

REQUIRING

CITY OF EUREKA ELK RIVER WASTEWATER TREATMENT PLANT
TO CEASE AND DESIST FROM DISCHARGING OR THREATENING
TO DISCHARGE EFFLUENT IN VIOLATION OF
WASTE DISCHARGE REQUIREMENTS ORDER NO. R1-2016-0001
NPDES NO. CA0024449
WDID NO. 1B82151OHUM

Humboldt County

The Regional Water Quality Control Board, North Coast Region (hereinafter Regional Water Board), finds that:

1. The City of Eureka (hereinafter Permittee) owns and operates a wastewater treatment plant (WWTP) located in Eureka, California. For the purposes of this Order, references to the "discharger" or "permittee" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Permittee herein.
2. The WWTP reports an average dry weather treatment capacity of 5.24 million gallons per day (mgd), a peak dry weather treatment capacity of 8.6 mgd, and a peak wet weather secondary treatment capacity of 12 mgd. Wastewater is conveyed to the WWTP through an extensive sanitary sewer system consisting of 125 miles of sewer mains, 9,500 service laterals, 17 lift stations, 3 pump stations, interceptor lines,

collection lines, and manholes. The system collects and conveys over 1.5 billion gallons of wastewater per year, including infiltration and inflow (I/I). The WWTP provides primary treatment with mechanical bar screens, grit removal, and primary clarification and secondary treatment using two trickling filters, followed by secondary clarification, and chlorine disinfection. The chlorinated effluent is stored in a holding pond then dechlorinated and discharged year round at Discharge Point 001 to Humboldt Bay in conjunction with ebb tide cycles.

3. The WWTP is regulated by Waste Discharge Requirements Order No. R1-2016-0001, National Pollutant Discharge Elimination System (NPDES) Permit No. CA0024449, adopted by the Regional Water Board on June 16, 2016. Order No. R1-2016-0001 contains discharge prohibitions, effluent and receiving water limitations, as well as other compliance provisions. Order No. R1-2016-0001 includes a prohibition on discharges to Humboldt Bay which do not comply with the State Board, Water Quality Control Policy for the Enclosed Bays and Estuaries of California (Bay and Estuaries Policy) and a prohibition on bypass of secondary treatment.
4. The discharge of treated effluent via the outfall in Humboldt Bay was permitted in 1981 based upon mathematical modeling, tidal monitoring, and a dye study completed in 1979, which indicated that discharging at ebb tide was expected to convey all effluent to the Pacific Ocean. Based upon findings from these 1979 studies completed by the Permittee, the Regional Water Board concluded in Resolution No. 80-10 that the ebb discharge concept was a viable alternative to ocean outfall as a means of complying with the Bays and Estuaries Policy adopted in 1974.
5. On January 8, 2014, the Permittee submitted the Effluent Discharge Study for the Elk River Wastewater Treatment Plant (2014 Effluent Discharge Study). The 2014 Effluent Discharge Study modeling analysis shows that under all simulations, WWTP effluent is never completely conveyed to the ocean, and under certain conditions, up to 90% of the effluent remains in Humboldt Bay.
6. Based on the conclusions of the 2014 Effluent Discharge Study, a significant portion of the Facility's effluent remains in the Humboldt Bay. Consequently, the Regional Water Board has determined that the discharge does not qualify as an ocean discharge as previously thought but rather a bay discharge subject to the Bays and Estuaries Policy. The method to comply with the Bays and Estuaries Policy has not yet been determined, but is likely to be complex and require extended time to achieve.
7. Regional Water Board waste discharge requirements for the WWTP dating back to 1984 have authorized bypass of secondary treatment during peak wet weather flows exceeding 12 mgd. Order No. R1-2016-0001 recognizes that ebb tide currents in Humboldt Bay are not sufficient in strength to carry effluent discharges out of Humboldt Bay and prohibits discharges to Humboldt Bay that do not receive full biological secondary treatment. The method to eliminate bypass of secondary treatment has not yet been determined, but is likely to be complex and require extended time to achieve.

8. Section 13301 of the California Water Code states “When a regional board finds that a discharge of waste is taking place, or threatening to take place, in violation of requirements or discharge prohibitions prescribed by the regional board or the state board, the board may issue an order to cease and desist and direct that those persons not complying with the requirements or discharge prohibitions to (a) comply forthwith, (b) comply in accordance with a time schedule set by the board, or (c) in the event of a threatened violation, take appropriate remedial or preventative action.”
9. Terms in Order No. R1-2016-0001 that are being violated or threaten to be violated are:

III. DISCHARGE PROHIBITIONS

- A. Discharge Prohibition III.A. The discharge of waste to Humboldt Bay is prohibited unless it is done in a manner which complies with the State Board, Water Quality Control Policy for the Enclosed Bays and Estuaries of California (1974, 1995) (Bays and Estuaries Policy).
 - E. Discharge Prohibition III E. The discharge of untreated or partially treated waste (receiving a lower level of treatment than secondary treatment as described in section II.A of the Fact Sheet) from anywhere within the collection, treatment, or disposal systems is prohibited, except as provided for in Attachment D, Standard Provisions G (Bypass) and H (Upset).
10. On _____, 2016, the Permittee submitted a statement of noncompliance issues for the WWTP. The Permittee has indicated concerns that it is unable to comply with the specific discharge prohibitions identified under Finding 5 above as required by Order No. R1-2016-0001. The statement of noncompliance contains proposed actions and compliance schedules to comply with Order No. R1-2016-0001.
11. Title 23, California Code of Regulations, section 2244(b) states, “Prohibitions or appropriate restrictions on additional discharges should be included in a cease and desist order if the further addition in volume, type, or concentration of waste entering the sewer system would cause an increase in violation of waste discharge requirements or increase the likelihood of violation of requirements.”

Due to ongoing inflow and infiltration, wet weather flows routinely exceed the WWTP 12 MGD secondary treatment capacity, resulting in the discharge to Humboldt Bay of partially treated waste, receiving a lower level of treatment than secondary treatment. The WWTP has not completed actions necessary to eliminate routine bypass conditions associated with high flows. Therefore, the Permittee is in violation of Waste Discharge Requirements, and additional flow of wastes will further hinder the Permittee’s ability to comply with Discharge Prohibition E in Order No. R1-2016-0001.
12. The Regional Water Board concurs with the Permittee’s assessment that it is infeasible to comply with Discharge Prohibitions A and E in a short period of time.

- a. The Permittee is unable to consistently comply with Discharge Prohibitions A. and E. because new or modified control measures are needed to achieve compliance, and the new or modified control measures are dependent on the completion of a series of studies, thus the new or modified control measures cannot be designed, installed, and put into operation within 30 calendar days.
 - b. Requirements of this Order establish a time schedule for bringing the WWTP into compliance with Discharge Prohibitions. A maximum of fifty seven(57) months are provided to the Permittee to complete a series of studies, and based upon the findings from those studies, to design, install and implement control measures that will lead to compliance with the Discharge Prohibitions.
13. The compliance schedule established in this Order accounts for the considerable uncertainty in determining effective measures necessary to achieve compliance with Order No. R1-2016-0001. The compliance schedule is based on reasonably expected times needed to evaluate potential compliance measures in a step-wise manner. The Regional Water Board may wish to revisit these assumptions as more information becomes available from the Permittee's evaluations.
14. Pursuant to Water Code section 13389 and section 15321 of title 14 of the California Code of Regulations, this is an enforcement action for violations and threatened violations of waste discharge requirements, and as such is exempt from the requirements of the California Environmental Quality Act (Public Resources Code sections 21000-21177).
15. On May 12, 2016, after due notice to the Permittee and all other interested persons, the Regional Water Board conducted a public hearing and received evidence regarding this Order.
16. Any person affected by this action of the Regional Water Board may petition the State Water Resources Control Board (State Water Board) to review the action in accordance with Water Code section 13320 and title 23, California Code of Regulations, section 2050. The petition must be received by the State Water Board within 30 days of the date of this Order. Copies of the law and regulations applicable to filing petitions will be provided upon request. In addition to filing a petition with the State Water Board, any person affected by this Order may request the Regional Water Board to reconsider this Order. To be timely, such request must be made within 30 days of the date of this Order. Note that even if reconsideration by the Regional Water Board is sought, filing a petition with the State Water Board within the 30-day period is necessary to preserve the petitioner's legal rights. If you choose to request reconsideration of this Order or file a petition with the State Water Board, you must comply with the Order while your request for reconsideration and/or petition is being considered.

THEREFORE, IT IS HEREBY ORDERED, that pursuant to California Water Code sections 13300 and 13301, the Permittee shall cease and desist from discharging and threatening to

discharge waste in violation of the terms of Waste Discharge Requirements Order No. R1-2016-0001, National Pollutant Discharge Elimination System (NPDES) Permit No. CA0024449 by complying with the following requirements:

1. Discharge Prohibition III E - The Permittee shall complete the following tasks by the associated compliance schedules:

Task 1A. By **July 31, 2016**, the Permittee shall submit a Sanitary Sewer Evaluation Survey (SSES) including characterization of the existing collection system, a prioritized list and schedule of repair for exfiltration, infiltration and inflow (I/I) reduction.

Task 1B. By **September 1, 2016**, the Permittee shall develop and submit a comprehensive Wet Weather Improvement Plan for Executive Officer approval. At a minimum, the Wet Weather Improvement Plan shall incorporate the following components for the reduction and ultimate elimination of flows that bypass secondary treatment in order to comply with Order No. R1-2016-0001:

- (1) Incorporate the priorities from the SSES under Task A;
- (2) Identify a range of alternatives for treatment plant corrective actions, improvements, upgrades, configuration, etc.;
- (3) Specify each preferred measure volume of wastewater to be eliminated from influent and/or bypass, an implementation schedule, cost, and proposed funding mechanism(s).

In addition, the Wet Weather Improvement Plan shall describe the Permittee's strategy to work with its satellite agency to reduce peak wet weather flows (e.g. establishing quantifiable goals in the reduction of inflow and infiltration).

Task 1C. By **March 1, 2017**, the Permittee shall initiate implementation of the approved Wet Weather Improvement Program in accordance with the approved schedule.

Task 1D. By **July 1, 2017 and annually by July 1 thereafter**, the Permittee shall evaluate and report on the implementation and effectiveness of its Wet Weather Improvement Program annually. Elements to be included in the report include, but are not limited to, progress on private sewer lateral programs and status of capital improvement projects. The Permittee shall include information from the satellite agencies to the extent that information is available.

2. Discharge Prohibition III A - The Permittee shall complete the following tasks by the associated compliance schedules:

Task 2A. By **January 31, 2017**, the Permittee shall submit a Feasibility Study for Executive Officer review and approval. At a minimum, the Feasibility Study shall consider the following for compliance with Order No. R1-2016-0001:

- (1) Existing WWTF performance;
- (2) Existing conditions at Discharge Point 001;
- (3) Climate Change;
- (4) Alternatives to the existing discharge location, configuration, and quality; and
- (5) Wastewater treatment system alternatives to comply with the Enclosed Bays and Estuaries Policy.

The Feasibility Study shall identify the Permittee's Preferred Alternative(s), including costs and a proposed schedule for implementation.

Task 2B. By **June 30, 2017**, the Permittee shall submit a preliminary Report of Waste Discharge (ROWD) based upon the identified Preferred Alternative(s). The preliminary ROWD shall include:

- (1) Proposed discharge location(s);
- (2) Liquid and solids waste treatment technologies proposed for the WWTP;
- (3) Anticipated effluent quality to be achieved by the proposed treatment technologies; and
- (4) Evaluation of preferred alternative(s)' ability to comply with the Discharge Prohibitions and anticipated Final Effluent Limitations associated with each discharge point and each constituent of concern in the effluent associated with the Preferred Alternative.

Task 2C. By **January 31, 2018**, the Permittee shall submit an Environmental Impact Report (EIR) or documentation necessary to complete the California Environmental Quality Act (CEQA) process for the Preferred Alternative identified in Task C.

Task 2D. By **July 31, 2018 and annually by July 1 thereafter**, the Permittee shall submit a report indicating progress and anticipated completion dates for the following items:

- (1) Project permit applications submitted to Army Corp of Engineers, Regional Water Board, Department of Fish and Wildlife, Humboldt County, Coastal Commission, and any other applicable agencies;
- (2) Actions taken to acquire land, easement, or public or private rights-of-way necessary to complete the Preferred Alternative(s); and
- (3) Preferred Alternative funding acquisition.

- Task 2E. By **November 1, 2018**, the Permittee shall secure funding for the Preferred Alternative and provide the Regional Water Board with documentation regarding the funding source(s).
- Task 2F. By **January 31, 2019**, the Permittee shall submit documentation that the land necessary for the Preferred Alternative has been acquired or a long-term lease is secured.
- Task 2G. By **April 1, 2019**, the Permittee shall submit written verification of complete design plans and specifications for construction of the Preferred Alternative in conjunction with a complete ROWD.
- Task 2H. By **December 31, 2020**, the Permittee shall complete construction of the Preferred Alternative and achieve compliance with all Regional Water Board waste discharge requirements including Discharge Prohibitions.
3. The addition of influent flows of wastewater to the WWTF (after May 12, 2016) from new or increased residential, commercial, industrial, and/or governmental connections is prohibited until such time that it can be demonstrated to the satisfaction of Executive Officer that more connections will not result in additional violations of Order No. R1-2016-0001. (Cal. Code Regs., tit. 23, § 2244.) Structures with building permits (or substitute final construction approval documents) already issued on or before May 12, 2016 are excluded from this prohibition. (Cal. Code Regs., tit. 23 §2244.1, subd.(a).)
 4. In the interim period until the Permittee can achieve full compliance with Order No. R1-2016-0001, the Permittee shall operate and maintain, as efficiently as possible, all facilities and systems necessary to comply with all prohibitions, effluent limitations and requirements identified in Order No. R1-2016-0001 or any future waste discharge requirements issued for the WWTP.
 5. If the Permittee is unable to perform any activity or submit any documentation in compliance with the deadlines set forth in Requirements above, the Permittee may request, in writing, that the Regional Water Board grant an extension of the time. The extension request shall include justification for the delay and shall be submitted at least seven days prior to the respective deadline to be considered timely. A minor extension may be granted by the Regional Water Board Executive Officer for good cause.
 6. If the Executive Officer of the Regional Water Board finds that the Permittee fails to comply with the provisions of this Order, the Executive Officer may take all actions authorized by law, including referring the matter to the Attorney General for judicial enforcement or issuing a complaint for administrative civil liability pursuant to Water Code sections 13350 and 13385. The Regional Water Board reserves the right to take any enforcement actions authorized by law.

Certification

I, Matthias St. John, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, North Coast Region, on May 12, 2016.

Matthias St. John
Executive Officer